

FOIA request 01849-12

Ralph Ludwig to: Suzanne Jackson

09/26/2012 09:58 AM

Hi Suzanne,

Below is some e-mail correspondence between EPA ORD and Chesapeake. There will be some more to come.

Ralph

Ralph D. Ludwig, Ph.D.
U.S. EPA
National Risk Management Research Laboratory
Ground Water and Ecosystem Restoration Division
919 Kerr Research Dr.
P.O. Box 1198
Ada, OK 74820

Phone: 580-436-8603 Fax: 580-436-8614

----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 09/26/2012 08:50 AM -----

From: Chris Hill <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Cc: Carlyle Miller/ADA/USEPA/US@EPA, Robert Puls/ADA/USEPA/US@EPA
Date: 10/18/2011 08:05 PM
Subject: RE: Bradford County Retrospective Case Study

Ralph,

Would you mind provide me your contact information? In addition, I would appreciate if you could provide a more detailed sampling schedule.

I appreciate your help.

Thanks,
Chris

From: Puls.Robert@epamail.epa.gov [mailto:Puls.Robert@epamail.epa.gov]

Sent: Tuesday, October 18, 2011 8:02 PM

To: Chris Hill

Subject: Re: Bradford County Retrospective Case Study

Ralph Ludwig

From: Chris Hill [chris.hill@chk.com]
Sent: 10/18/2011 09:17 PM GMT
To: Carlyle Miller; Robert Puls
Cc: Ralph Ludwig
Subject: Bradford County Retrospective Case Study

Bob/Carl,

I have a quick question regarding the Bradford County retrospective study. Regarding communication, if Chesapeake elects to take split samples and can obtain the appropriate access agreements, how and who would you like Chesapeake to communicate with in terms of coordinating any split sampling efforts. The list provided only has a date and a general time (AM or PM).

Any additional information you can provide would be greatly appreciated.

Thank you,
Chris Hill
Environmental Engineer
Chesapeake Energy Corporation
Office: (405) 935-2321
Mobile: (405) 388-3907
Fax: (405) 849-2321
E-mail: Chris.Hill@chk.com



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----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 09/26/2012 08:50 AM -----

From: Chris Hill <chris.hill@chk.com>
To: Carlyle Miller/ADA/USEPA/US@EPA, Robert Puls/ADA/USEPA/US@EPA
Cc: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 10/18/2011 04:18 PM
Subject: Bradford County Retrospective Case Study

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I have a quick question regarding the Bradford County retrospective study. Regarding communication, if Chesapeake elects to take split samples and can obtain the appropriate access agreements, how and

who would you like Chesapeake to communicate with in terms of coordinating any split sampling efforts. The list provided only has a date and a general time (AM or PM).

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----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 09/26/2012 08:50 AM -----

From: Chris Hill <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 10/20/2011 02:36 PM
Subject: RE: DEP split sampling

Thanks for the contact info. I will make it 8:30 - 10 to better accommodate your schedule.

-----Original Message-----

From: Ludwig.Ralph@epamail.epa.gov [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Thursday, October 20, 2011 2:34 PM
To: Chris Hill
Subject: RE: DEP split sampling

Sounds good Chris. Hopefully we'll be there by 8 PM. (Our flight is scheduled to arrive in Syracuse at 5:15 PM). Below is Stephen Brokenshire's contact info.

Stephen D. Brokenshire | Mineral Resources Program Specialist |
Division of Resource Management & Well Development |
Office of Oil & Gas Management |
Pennsylvania Department of Environmental Protection |
Scranton District Office |
Samter Building Suite 400 |
101 Penn Avenue |
Scranton, PA 18503 |

Office (570) 346-5535 |
Cell Phone (570) 855-5913 |
sbrokenshi@pa.gov
www.dep.state.pa.us

Ralph D. Ludwig, Ph.D.
U.S. EPA
National Risk Management Research Laboratory
Ground Water and Ecosystem Restoration Division
919 Kerr Research Dr.
P.O. Box 1198
Ada, OK 74820

Phone: 580-436-8603 Fax: 580-436-8614

From: Chris Hill <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 10/20/2011 02:23 PM
Subject: RE: DEP split sampling

Ralph,

Would you mind sending me an email with Stephen Brokenshire's contact information? I would like to include him in the invite for our meeting on Monday.

FYI, I think we are going to have to schedule the meeting for 8 - 9:30 pm on Monday Oct. 24 because our folks aren't arriving until the evening as well. From the sounds of things, that would work better for you and some of your other team members as well? You should see an invite from me for the meeting this afternoon.

Thanks,
Chris

-----Original Message-----

From: Ludwig.Ralph@epamail.epa.gov [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Thursday, October 20, 2011 8:51 AM
To: Chris Hill
Subject: DEP split sampling

Chris

FYI. Stephen Brokenshire from PADEP contacted me this morning indicating he would like to collect split samples from all locations. It looks like we'll be having a party.

Ralph

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----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 09/26/2012 08:50 AM -----

From: Chris Hill <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 10/20/2011 09:41 AM
Subject: RE: DEP split sampling

I appreciate you letting me know. Thanks, Chris

-----Original Message-----

From: Ludwig.Ralph@epamail.epa.gov [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Thursday, October 20, 2011 8:51 AM
To: Chris Hill
Subject: DEP split sampling

Chris

FYI. Stephen Brokenshire from PADEP contacted me this morning indicating he would like to collect split samples from all locations. It looks like we'll be having a party.

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----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 09/26/2012 08:50 AM -----

From: "Chris Hill (Regulatory)" <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 01/19/2012 12:55 PM
Subject: RE: HF status in Bradford County

Ralph,

I apologize for my delay in responding to your email. I originally planned to call you last week, however, Doug Beak informed me that you all were in DC.

I am more than happy to help you gather and/or supply information any way I can to support your study effort. I would appreciate the opportunity to speak with you so I better understand exactly what information you need and the best format to supply it in.

Please give me a call (any time) at your convenience.

Thank you,
Chris Hill
Environmental Engineer
Chesapeake Energy Corporation
Office: (405) 935-2321
Mobile: (405) 388-3907
Fax: (405) 849-2321
E-mail: Chris.Hill@chk.com

-----Original Message-----

From: Ralph Ludwig [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Thursday, January 05, 2012 5:28 PM
To: Chris Hill
Cc: Carlyle Miller
Subject: HF status in Bradford County

Dear Chris,
Can you provide us with the most up-to-date information about the status and details of Chesapeake wells in Bradford County (e.g. depths, horizontal lengths and azimuths, when drilled, when hydraulically fractured, etc.)? This would be most helpful as we move forward with our study in Bradford County.

Cheers,

Ralph

Ralph D. Ludwig, Ph.D.
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From: "Chris Hill (Regulatory)" <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 01/30/2012 04:06 PM
Subject: RE: HF status in Bradford County

Ralph,

If you have the time, I would actually prefer and appreciate the opportunity to speak with you tomorrow. I think a conversation would help me get you what you need quickly.

I look forward to speaking with you. Should I plan on hearing from you around 3 pm CST, or would you prefer I called you?

Thank you,
Chris Hill
Environmental Engineer
Chesapeake Energy Corporation
Office: (405) 935-2321
Mobile: (405) 388-3907
Fax: (405) 849-2321
E-mail: Chris.Hill@chk.com

-----Original Message-----

From: Ludwig.Ralph@epamail.epa.gov [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Monday, January 30, 2012 2:55 PM
To: Chris Hill (Regulatory)
Subject: RE: HF status in Bradford County

Chris,

We do not need to talk tomorrow unless that is your preference. If it is more convenient to talk later in the week or early next week, that will be fine with me.

Ralph

Ralph D. Ludwig, Ph.D.
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Phone: 580-436-8603 Fax: 580-436-8614

From: "Chris Hill (Regulatory)" <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA

Date: 01/30/2012 02:29 PM
Subject: RE: HF status in Bradford County

Ralph,

Does 3 pm work for you? I will be in DC, so please call my cell.

Thank you,
Chris Hill
Environmental Engineer
Chesapeake Energy Corporation
Office: (405) 935-2321
Mobile: (405) 388-3907
Fax: (405) 849-2321
E-mail: Chris.Hill@chk.com

-----Original Message-----

From: Ludwig.Ralph@epamail.epa.gov [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Monday, January 30, 2012 9:44 AM
To: Chris Hill (Regulatory)
Subject: RE: HF status in Bradford County

Chris,

I got your voice mail. Thanks. I have attached a list of the well pads in Bradford County of interest to us. As per my previous e-mail, we would like the most up-to-date information regarding well status at these pad locations (e.g. if and when hydraulically fractured, depths, horizontal lengths and azimuths, etc.)? I will call tomorrow afternoon to discuss if that works for you.

Cheers,

Ralph

(See attached file: well pads of interest list.docx)

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Cc: Carlyle Miller
Subject: HF status in Bradford County

Dear Chris,

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To: Ralph Ludwig/ADA/USEPA/US@EPA
Cc: Stephanie Timmermeyer <stephanie.timmermeyer@chk.com>, John Satterfield <john.satterfield@chk.com>, David Jewett/ADA/USEPA/US@EPA, Carlyle Miller/ADA/USEPA/US@EPA
Date: 02/15/2012 09:52 AM
Subject: CHK Bradford County Map

Ralph,

I have generated the attached map to provided you a better understanding of Chesapeake's operation in the Bradford Co area in relation to your retrospective sample locations. I had assumed EPA obtained this information from the state during the Tier I stakeholder interview process prior to selecting the sample location, however, we are happy to provide it at this point in time. I hope you find the map useful in your study efforts.

Please let me know if you have any questions and there is anything else we can do to help.

Thank you,
Chris Hill
Environmental Engineer
Chesapeake Energy Corporation
Office: (405) 935-2321
Mobile: (405) 388-3907
Fax: (405) 849-2321
E-mail: Chris.Hill@chk.com



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any). ED_PA_EPA Retrospective Study-V2_93 CBH.PDF

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To: Ralph Ludwig/ADA/USEPA/US@EPA
Cc: Carlyle Miller/ADA/USEPA/US@EPA
Date: 04/04/2012 11:49 AM
Subject: RE: next planned sampling round in northeast PA

References:

NURE: <http://mrdata.usgs.gov/nure/water/>

NWIS:

http://nwis.waterdata.usgs.gov/pa/nwis/qwdata?county_cd=42009&format=station_list&sort_key=site_no&group_key=NONE&inventory_output=0&rdb_inventory_output=file&TZoutput=0&pm_cd_compare=Greater than&radio_parm_cds=all_parm_cds&qw_attributes=0&qw_sample_wide=wide&rdb_qw_attributes=0&date_format=YYYY-MM-DD&rdb_compression=file&list_of_search_criteria=county_cd

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Low, DJ. and DG Galeone, 2007. Reconnaissance of Arsenic Concentrations in Ground Water from Bedrock and Unconsolidated Aquifers in Eight Northern-Tier Counties of Pennsylvania, Open-File Report 2006-1376, USGS.

Swistock, BR, Clemens, S and WE Sharpe, 2009. Drinking Water Quality in Rural Pennsylvania and the Effect of Management Practices, Center for Rural Pennsylvania, January 2009.

Williams, JE, Taylor, LE and DJ Low, 1998. Hydrogeology and Groundwater Quality of the Glaciated Valleys of Bradford, Tioga, and Potter Counties, Pennsylvania, PA Geological Survey and USGS, Water Resources Report 68.

Williams, JH, 2010. Evaluation of Well Logs for Determining the Presence of Freshwater, Saltwater and Gas above the Marcellus Shale in Chemung, Tioga, and Broome Counties, New York, USGS, Scientific Investigations Report 2010-5224.

From: Ralph Ludwig [mailto:Ludwig.Ralph@epamail.epa.gov]

Sent: Wednesday, April 04, 2012 10:52 AM

To: Chris Hill (Regulatory)

Subject: Fw: next planned sampling round in northeast PA

Hi Chris,

For some reason my "sent e-mail" box does not indicate you received the e-mail below that I sent out last yesterday. In case you did not receive it, here it is. Thanks.

Ralph

Ralph D. Ludwig, Ph.D.
U.S. EPA
National Risk Management Research Laboratory
Ground Water and Ecosystem Restoration Division
919 Kerr Research Dr.
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Ada, OK 74820

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----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 04/04/2012 10:48 AM -----

From: John Smelko <john.smelko@cabotog.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA, "chris.hill@chk.com" <chris.hill@chk.com>, "radams@chiefog.com" <radams@chiefog.com>, Andy Mehalko <andy.mehalko@cabotog.com>
Cc: Carlyle Miller/ADA/USEPA/US@EPA, Doug Beak/ADA/USEPA/US@EPA
Date: 04/03/2012 06:06 PM
Subject: RE: next planned sampling round in northeast PA

Thanks for the note Ralph.

John Smelko
North Region Manager, Environmental and Regulatory Compliance
Cabot Oil & Gas Corporation
Five Penn Center West, Suite 401
Pittsburgh, PA 15276
412-249-3854 (Office)
412-613-7642 (Cell)
John.Smelko@cabotog.com

From: Ralph Ludwig [<mailto:Ludwig.Ralph@epamail.epa.gov>]
Sent: Tuesday, April 03, 2012 6:54 PM
To: chris.hill@chk.com; John Smelko; radams@chiefog.com; Andy Mehalko
Cc: Carlyle Miller; Doug Beak
Subject: next planned sampling round in northeast PA

Greetings,

I wanted to let you all know that our next sampling round in northeast PA is scheduled to begin April 24 and will continue until May 1. We will be sending you a list of homeowner wells and surface water bodies to be sampled as well as a tentative sampling schedule by early next week. Once you receive the schedule, we can have a conference call, if you wish, to discuss any issues/concerns you might have. We will not be sampling in Susquehanna County during this sampling round and thus our sampling will be confined to Bradford County.

During this upcoming round of sampling, you are welcome to collect samples from the selected wells and surface water bodies after we have completed collection of our samples. Dedicated sample tubing and fittings/adapters, as applicable, will be left in place to facilitate follow-up sampling of wells by you as you

wish. We will unfortunately not have equipment available for you should you wish to sample any surface water bodies. As before, permission to access homeowner properties will need to be worked out between you and the individual homeowners.

Regards,

Ralph Ludwig

Ralph D. Ludwig, Ph.D.
U.S. EPA
National Risk Management Research Laboratory
Ground Water and Ecosystem Restoration Division
919 Kerr Research Dr.
P.O. Box 1198
Ada, OK 74820

Phone: 580-436-8603 Fax: 580-436-8614

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----- Forwarded by Ralph Ludwig/ADA/USEPA/US on 09/26/2012 08:50 AM -----

From: "Chris Hill (Regulatory)" <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA, "john.smelko@cabotog.com" <john.smelko@cabotog.com>
Cc: Carlyle Miller/ADA/USEPA/US@EPA, Doug Beak/ADA/USEPA/US@EPA, "radams@chiefog.com" <radams@chiefog.com>
Date: 04/17/2012 06:26 PM
Subject: RE: sampling schedule for Bradford County

Ralph,

I will confirm this Friday the first location we have access to according to your existing schedule .

Thanks,
Chris

From: Ralph Ludwig [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Tuesday, April 17, 2012 4:07 PM
To: Chris Hill (Regulatory); john.smelko@cabotog.com
Cc: Carlyle Miller; Doug Beak; 'radams@chiefog.com'
Subject: Re: sampling schedule for Bradford County

Hi Chris/John,

We will be arriving very late Monday evening (probably after 10 PM) and will be starting very early the

following morning. I think it will be best if we just meet at the first location you will have access to. Do you know which homeowner locations you will have access to on Tuesday April 24 and therefore where we can first meet?

Regards,

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▼ "Chris Hill (Regulatory)" ---04/17/2012 12:53:02 PM---Ralph, Chesapeake would be more than happy to host a kick-off meeting again. Please let me know if y

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To: "john.smelko@cabotog.com" <john.smelko@cabotog.com>, Ralph Ludwig/ADA/USEPA/US@EPA, "radams@chiefog.com" <radams@chiefog.com>
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Cc: Carlyle Miller <Miller.Carlyle@epamail.epa.gov>; Doug Beak <Beak.Doug@epamail.epa.gov>
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Just thought I'd check. Are you planning on having a kick-off meeting before this round of sampling or are we just

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Thanks,
John

John Smelko
North Region Manager, Environmental and Regulatory Compliance
Cabot Oil & Gas Corporation
Five Penn Center West, Suite 401
Pittsburgh, PA 15276
412-249-3854 (Office)
412-613-7642 (Cell)
John.Smelko@cabotog.com

From: Ralph Ludwig [<mailto:Ludwig.Ralph@epamail.epa.gov>]
Sent: Tuesday, April 10, 2012 6:41 PM
To: chris.hill@chk.com; John Smelko; radams@chiefog.com
Cc: Carlyle Miller; Doug Beak
Subject: sampling schedule for Bradford County

Hi,

Attached is the tentative sampling schedule for our upcoming trip to Bradford County. There may still be some minor changes in schedule as we move forward but sampling locations will not change. Please feel free to contact me if you have any questions/concerns.

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(See attached file: Spring 2012 Bradford Co sampling schedule.xlsx)

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Cc: Carlyle Miller/ADA/USEPA/US@EPA, Doug Beak/ADA/USEPA/US@EPA, "radams@chiefog.com" <radams@chiefog.com>
Date: 04/20/2012 10:50 AM
Subject: RE: sampling schedule for Bradford County

Ralph,

Pauliny is currently the only landowner schedule on Tuesday April 24 that has granted us permission to split sample has declined, and we have calls into and . I will send you an update on Monday.

Please let me know if you have any questions.

Thanks,
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From: "Chris Hill (Regulatory)" <chris.hill@chk.com>
To: Ralph Ludwig/ADA/USEPA/US@EPA
Date: 04/16/2012 05:48 PM
Subject: RE: Homes likely not to be sampled again in Bradford Co

Thanks Ralph.

From: Ralph Ludwig [mailto:Ludwig.Ralph@epamail.epa.gov]
Sent: Monday, April 16, 2012 5:42 PM
To: Chris Hill (Regulatory)
Subject: Homes likely not to be sampled again in Bradford Co

Hi Chris,

Right now I can only provide you with four homes that will very likely not be sampled again as part of our study. They are the confidential location Some others may also not be sampled in the future but we are less sure about them at this time.

Regards,

Ralph

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To: Doug Beak/ADA/USEPA/US@EPA
Cc: Ralph Ludwig/ADA/USEPA/US@EPA, Carlyle Miller/ADA/USEPA/US@EPA
Date: 05/01/2012 10:58 PM
Subject: RE: Sampling methods and protocols used in Ne PA

Hi Doug,

I hope you all had a good round of sampling in Bradford County! I was disappointed I was not able to get out there, but hopefully I can make it in July. I am more than happy to round up this information for you, Ralph, and Carl. Similar to your team, we have a number of folks in transit, however, it shouldn't be a problem getting this information to you next week. If you don't mind, could you please inform me how this information will be used by EPA in their study efforts? I would also like to know if EPA has requested similar information from other operators?

Please let me know if you think of anything else CHK can do to help.

Thanks,
Chris

From: Doug Beak [mailto:Beak.Doug@epamail.epa.gov]
Sent: Tuesday, May 01, 2012 8:38 PM
To: Chris Hill (Regulatory)
Cc: Ralph Ludwig; Carlyle Miller

Subject: Sampling methods and protocols used in Ne PA

Hi Chris,

In October 2011 we asked Dana for the sampling methods and protocols you used for your sampling in NE PA. We never received these, but did receive information on split sampling method. We are again requesting the this information. We are interested in knowing what analytes were sampled for, the protocols for sampling (including sampling flow rates, how the flow rates are determined, containers used, preservatives used, criteria for determining when samples should be collected, and all methods used for sample collection). In addition, we are interested in knowing what QA samples were collected, the frequency of collection, and the proximity to the sampling location in the case of blanks. Finally, we are requesting the protocols for the calibration of field equipment, the QA types and frequency used for the field equipment and measurements. It would also be helpful to get a copy of the QAPP for this effort. We would also like the same information for the April/May sampling also. Thank you for your attention to this matter.

Doug

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To: Doug Beak/ADA/USEPA/US@EPA
Cc: Ralph Ludwig/ADA/USEPA/US@EPA, Carlyle Miller/ADA/USEPA/US@EPA
Date: 05/03/2012 12:16 AM
Subject: RE: Sampling methods and protocols used in Ne PA

Hi Doug,

I appreciate the quick response. I am working to provide you the same courtesy regarding the information you requested. Please note that I believe some of this information has been provided to EPA on previous occasions in regards to our prospective study. However, I will have the information verified, compiled and sent to you as soon as possible.

It is interesting to hear that EPA has only requested this information for the TX and ND studies. I know there are other stakeholders (state and industry) that are collecting samples in conjunction with EPA's retrospective sampling events, including in the Susquehanna/Bradford Co. study. Out of curiosity, what is the rationale behind requesting this information from some participating stakeholders and not others?

Please let me know if you think of anything else CHK can do to help.

Thanks,
Chris

From: Doug Beak [mailto:Beak.Doug@epamail.epa.gov]
Sent: Wednesday, May 02, 2012 10:46 AM
To: Chris Hill (Regulatory)
Cc: Ralph Ludwig; Carlyle Miller
Subject: Re: Sampling methods and protocols used in Ne PA

Hi Chris,

Yes, we have requested similar information for both the TX and ND studies. For the ND site we have had this information since last July along with their approved QAPP. In TX the state is currently putting this information together since they are the only others sampling and observing.

Since we don't know how the data you are collecting will be used, we are concerned about the comparability and quality of the data you are collecting. Similar to what we are hearing from your side when in the field. Therefore, we need the requested information to be assured that the data you are collecting is comparable and of similar quality.

Doug
Dr. Douglas G. Beak
USEPA-ORD-NRMRL-GWERD-SRB
919 Kerr Research Dr.
Ada, OK 74820

email: beak.doug@epa.gov
Phone: 580-436-8813
Fax: 580-436-8703
Blackberry: 580-235-7158

From: "Chris Hill (Regulatory)" [chris.hill@chk.com]
Sent: 05/02/2012 03:58 AM GMT
To: Doug Beak
Cc: Ralph Ludwig; Carlyle Miller
Subject: RE: Sampling methods and protocols used in Ne PA

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Cc: David Jewett/ADA/USEPA/US@EPA, Bert Smith <bert.smith@chk.com>, "John Satterfield" <john.satterfield@chk.com>, Stephanie Timmermeyer <stephanie.timmermeyer@chk.com>
Date: 05/17/2012 01:22 PM
Subject: FW: EPA Retrospective Study in Bradford County, PA - Weston Solutions Evaluation of Data

Gentlemen,

I just wanted to make sure you saw this report. Please feel free to contact me if you have any questions. CHK welcomes and would appreciate any comments you may have regarding the report.

Thank you,
Chris Hill
Environmental Engineer
Chesapeake Energy Corporation
Office: (405) 935-2321
Mobile: (405) 388-3907
Fax: (405) 849-2321
E-mail: Chris.Hill@chk.com



From: John Satterfield
Sent: Thursday, May 17, 2012 1:04 PM
To: Chris Hill (Regulatory); Bert Smith; Cassi Vann
Subject: FW: EPA Retrospective Study in Bradford County, PA - Weston Solutions Evaluation of Data

FYI

From: John Satterfield
Sent: Thursday, May 17, 2012 1:02 PM
To: trovato.ramona@epa.gov
Cc: 'briskin.jeanne@epa.gov'; Stephanie Timmermeyer
Subject: EPA Retrospective Study in Bradford County, PA - Weston Solutions Evaluation of Data

Ramona:

As you know, Chesapeake's consultants collected split samples from residential drinking water sources during EPA's retrospective study field work in Bradford County, PA in October and November 2011. Though EPA sampled 37 total residential drinking water sources during this effort, Chesapeake's consultants were only able to obtain split samples from 14 residential wells and 1 spring. Access to collect splits from the other EPA sampling sites was denied Chesapeake's consultant by the associated landowners.

Chesapeake commissioned WESTON Solutions to evaluate the data in respect to previously collected Chesapeake samples from some of the studied drinking water sources and historic regional drinking water quality as available from the United States Geologic Survey. Based upon this evaluation, WESTON concludes these 15 residential drinking water sources do not appear to be impacted by Marcellus Shale natural gas drilling or production activities - including hydraulic stimulation.

Please note that we have begun disseminating this report to other appropriate stakeholders (i.e., landowners, PA DEP) and will make the document available to the public via the internet in the near future.

Chesapeake understands and supports EPA's critical evaluation of all sources of secondary information used in its hydraulic fracturing study. We hope you will consider the attached as you review and interpret your own sets of data and certainly welcome any comments or questions you may have regarding the WESTON report.

Please feel free to contact Stephanie or me if you'd like to discuss further .

Thank you,
John Satterfield
Director Environmental and Regulatory Affairs
Chesapeake Energy Corporation
Office: (405) 935-3171
Fax: (405) 849-3171
E-mail: john.satterfield@chk.com

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any). **CHK.Report_041312.pdf**